



The

Broadcasters' Desktop Resource

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... edited by Barry Mishkind – the Eclectic Engineer

Broadcast Operations

Unusual Tools Help On The Bench



By Dave Dunsmoor

[June 2021] For most of us, having one of every tool is probably not economically or spatially feasible. On the other hand, having a knowledge of various tools that can be adapted will come in handy.

From time to time, I find some gadget which is used in some other industry unrelated to electronics that is useful in solving a problem in our business.

In this case it was a small magnifier that my son used when he was going to a photography school.



These are used for close-up inspection of negatives, film, photographs, etc. and are especially useful due to the clear base which allows ambient light to illuminate the object in question.

I now keep this little magnifier on the bench right next to the soldering station.

PUTTING IT TO GOOD USE

One time, I had an audio distribution amplifier on the bench that showed intermittent levels on one channel.

After opening it up to see what was the problem. I looked over the circuit board, but did not see anything that was obviously wrong.

So, I grabbed the magnifier to take a closer look.



Sure enough, there was a cold solder joint was ever so slightly cracked around the pin itself.



I could not see it with the naked eye but, with the aid of the little magnifier, as I looked more closely the crack in the solder joint was easy to see.

I now clearly had found the problem.

A quick cleanup with some wick and resoldering solved that problem.

A DIFFERENT TOOL WORTH A LOOK

Another occasionally useful item that is not generally in the typical engineer's toolbox is a .22 caliber bore brush.



a .22 Bore Brush

I used this one to clean out some honeycomb RFI filters in the input of a transmitter cooling blower's air intake a while back. As I recall it helped drop the exhaust temperature substantially.

Generally they are only an inch or two in length, and about \$3 to \$10, but some day you, too, might find this a useful tool to have on your bench.

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Dave Dunsmoor retired after 35 years as an FAA technician and radio engineer in Minot, ND. He keeps busy hiking and still doing a bit of contract engineering.

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